

CLAIMS

What is claimed is:

1. A method comprising:

receiving network data in a first format;

converting the data to a synchronous optical network (SONET) format;

performing switching functions on the SONET formatted data; and

converting the SONET formatted data to a second format.

2. The method of claim 1 wherein performing switching functions on the

SONET formatted data comprises performing time switching and space switching.

3. The method of claim 1 further comprising transmitting the SONET

formatted data as one or more serial data signals.

4. The method of claim 3 wherein the one or more serial data signals is

transmitted as a differential pair.

5. The method of claim 1 wherein the data in the second format comprises an

aggregation of multiple data signals in the first format.

6. The method of claim 1 wherein the network data is received by a first card

in an electronic system, the first card coupled to a first network, and wherein a cross-

connect card in the electronic system performs the switching, and further wherein a

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4 second card in the electronic system coupled to a second network transmits the data in the
5 second format.

1 7. The method of claim 6 wherein the first card, the cross-connect card and
2 the second card are interconnected by a backplane within the electronic system.

1 8. The method of claim 1 wherein the SONET formatted data is
2 communicated according to one of STS-1, STS-3, STS-12, STS-48 and STS-192
3 protocols.

1 9. An apparatus comprising:
2 means for receiving network data in a first format;
3 means for converting the data to a synchronous optical network (SONET) format;
4 means for performing switching functions on the SONET formatted data; and
5 means for converting the SONET formatted data to a second format.

1 10. The apparatus of claim 9 wherein the means for performing switching
2 functions on the SONET formatted data comprises means for performing time switching
3 and space switching.

1 11. The apparatus of claim 9 further comprising means for transmitting the
2 SONET formatted data as one or more serial data signals.

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1 12. The apparatus of claim 11 wherein the one or more serial data signals is
2 transmitted as a differential pair.

1 13. The apparatus of claim 9 wherein the data in the second format comprises
2 an aggregation of multiple data signals in the first format.

1 14. The apparatus of claim 9 wherein the network data is received by a first
2 card in an electronic system, the first card coupled to a first network, and wherein a cross-
3 connect card in the electronic system performs the switching, and further wherein a
4 second card in the electronic system coupled to a second network transmits the data in the
5 second format.

1 15. The apparatus of claim 14 wherein the first card, the cross-connect card
2 and the second card are interconnected by a backplane within the electronic system.

1 16. The method of claim 9 wherein the SONET formatted data is
2 communicated according to one of STS-1, STS-3, STS-12, STS-48 and STS-192
3 protocols.